# SOUTH SUDAN

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2022

## KEY DATA

### CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

**6.1 KM²**

SUBMUNITION CLEARANCE IN 2021

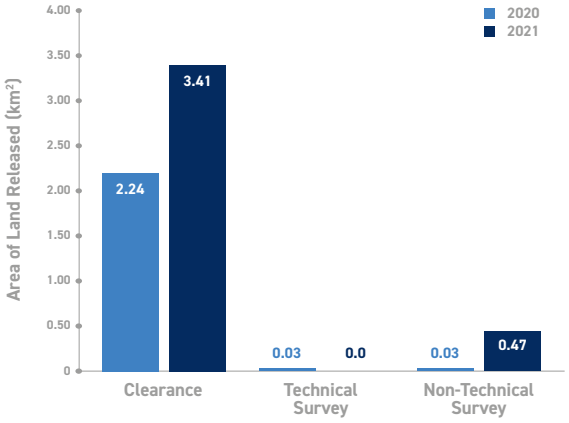
**3.41 KM²**

SUBMUNITIONS DESTROYED IN 2021

**2,922**

(INCLUDING 71 DESTROYED DURING SPOT TASKS)

### LAND RELEASE OUTPUT




## RECOMMENDATIONS FOR ACTION

- **South Sudan should accede to the Convention on Cluster Munitions (CCM) in line with the decision taken by the Council of Ministers announced in September 2017.**
- **South Sudan should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.**
- **South Sudan should increase its financial support for mine action operations. Greater assistance from the government and international partners should be provided to the National Mine Action Authority (NMAA) to strengthen its capacity to develop and implement effective policies to address explosive ordnance.**
- **South Sudan should develop its resource mobilisation strategy and initiate dialogue with development partners on long-term support for mine action, including to address CMR.**
- **South Sudan should ensure that the voluntary Article 7 reports it submits contain data consistent with the International Mine Action Standards (IMAS), which is disaggregated by suspected hazardous areas and confirmed hazardous areas and their relative size, and that the release of areas is reported in accordance with the methodology employed.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- National Mine Action Authority (NMAA)

### NATIONAL OPERATORS

- None

### INTERNATIONAL OPERATORS

- Danish Church Aid (DCA)
- Danish Refugee Council – Mine Action (DRC-MA) (previously Danish Demining Group (DDG))
- G4S Ordnance Management (G4S)
- Mines Advisory Group (MAG)
- The Development Initiative (TDI)
- SafeLane Global

### OTHER ACTORS

- UN Mine Action Service (UNMAS)

# UNDERSTANDING OF CMR CONTAMINATION

At the end of 2021, South Sudan had 130 hazardous areas covering a total size estimated at just under 6.1km$^2$ contaminated with CMR, of which 5.3km$^2$ was confirmed hazardous area (CHA) and 0.8km$^2$ was suspected hazardous area (SHA).[1] Eight of South Sudan's ten states have areas suspected to contain CMR (see Table 1), with Central and Eastern Equatoria remaining the most contaminated. This is an increase from the 5.8km$^2$ across 128 hazardous areas confirmed or suspected to be contaminated with CMR at the end of 2020.[2] The increase in the contamination estimate from 2020 to 2021 cannot be explained by land release and newly added contamination data.

In 2017, the United Nations Mine Action Service (UNMAS) initiated a review of the national Information Management System for Mine Action (IMSMA) database and subsequently initiated targeted re-survey aimed at better defining the estimated size of SHAs. Re-survey of SHAs is now part of the process whenever clearance teams are tasked to clear cluster munition-contaminated area.[3]

South Sudan's national mine action programme has greatly improved the accuracy of estimates of contamination in recent years. The total estimate of mine, CMR, and other explosive remnants of war (ERW) contamination remaining in the country decreased from nearly 89km$^2$ at the end of 2017 to just over 18km$^2$ at the end of 2021.[4] Despite continued land release, however, CMR contamination has increased over that period as a review of existing records in the database and re-survey resulted in three main changes that have proved especially significant with regard to CMR contamination: a number of existing task records had been wrongly recorded and were re-classified as CMR-contaminated areas; several overly conservative estimates of existing CHAs in the database were increased to better reflect the actual extent of contamination; and previously unrecorded areas containing CMR were added to the database.[5]

While it is understood that there are 130 hazardous areas across South Sudan, historically the size of cluster munition strike sites has been underestimated with analysis of previous clearance suggesting that the average task size is around 70,000m$^2$ (often reflecting multiple, overlapping strikes). It is likely therefore that the current projection of CMR contamination underestimates the scale of the problem.[6] It is also thought that, as refugees start to return, they will encounter previously unrecorded submunitions as the areas with the highest levels of contamination, especially in Central and Eastern Equatoria, are sparsely populated.[7] There also continue to be hazardous areas which are located in remote or sparsely populated areas and where information on contamination is difficult to verify via non-technical survey.[8]

In 2021, a total of 933,706m$^2$ of previously unrecorded CMR contamination was added to South Sudan's mine action information management database.[9]

Cluster munitions were used during the decade-long war between Sudan and the Sudan People's Liberation Army/ Movement (SPLA/M) that ended in 2005. From 1995 to 2000, prior to South Sudan's independence, Sudanese government forces are believed to have air dropped cluster munitions over southern Sudan.

**Table 1: Cluster munition-contaminated area by state (at end 2021)[10]**

| State | CHAs | Area (m$^2$) | SHAs | Area (m$^2$) | Total CHAs/SHAs | Total area (m$^2$) |
|---|---|---|---|---|---|---|
| Central Equatoria | 44 | 2,162,470 | 2 | 475,887 | 46 | 2,638,357 |
| Eastern Equatoria | 55 | 2,434,271 | 1 | 5,748 | 56 | 2,440,019 |
| Jonglei | 6 | 305,458 | 3 | 148,349 | 9 | 453,807 |
| Lakes | 1 | 58,040 | 0 | 0 | 1 | 58,040 |
| Upper Nile | 3 | 95,098 | 0 | 0 | 3 | 95,098 |
| Warrap | 1 | 19,745 | 0 | 0 | 1 | 19,745 |
| Western Bahr El Ghazal | 1 | 36,502 | 0 | 0 | 1 | 36,502 |
| Western Equatoria | 12 | 179,744 | 1 | 175,698 | 13 | 355,442 |
| **Totals** | **123** | **5,291,328** | **7** | **805,682** | **130** | **6,097,010** |

1 Email from Fran O'Grady, Chief of Mine Action, United Nations Mission in South Sudan (UNMISS), 9 March 2022.
2 Email from Richard Boulter, Senior Programme Manager, UN Mine Action Service (UNMAS), 11 April 2021.
3 Email from Fran O'Grady, UNMISS, 9 March 2022.
4 Email from Ayaka Amano, UNMAS, 2 May 2019; UNMAS, South Sudan IMSMA Monthly Report, March 2004 to December 2021, at: https://bit.ly/34nv9VK.
5 Email from Ayaka Amano, UNMAS, 2 May 2019.
6 Voluntary Article 7 Report (covering 2020), Form A.
7 Email from Brendan Ramshaw, Operations Manager, DCA, 22 April 2021.
8 Email from Lisa Mueller-Dormann, Programme Officer/Co-coordinator Mine Action Sub-cluster, MAG, 22 March 2022.
9 Email from Fran O'Grady, UNMISS, 9 March 2022.
10 Email from Fran O'Grady, UNMISS, 9 March 2022. This differs slightly from the reporting in South Sudan's Voluntary Article 7 Report (covering 2021), Form F, which gives an overall contaminated area of 6,069,770m$^2$ and does not disaggregate by CHA and SHA.
11 "South Sudan De-Mining Authority", undated, at: http://bit.ly/2Y5Eb4o.

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

South Sudan has a significant problem with mines and especially ERW, resulting from large-scale use of explosive weapons during armed conflicts in 1955–72 and 1983–2005 (see Mine Action Review's *Clearing the Mines 2021* report on South Sudan for further information on landmines).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The South Sudan Demining Authority (SSDA) – since renamed the South Sudan National Mine Action Authority (NMAA) – was established by presidential decree in 2006 to function as the national agency for planning, coordination, and monitoring of mine action in South Sudan.[11] There is no national mine action legislation in place.[12]

In 2011, UN Security Council Resolution 1996 tasked UNMAS with supporting South Sudan in demining and strengthening the capacity of the NMAA. UNMAS and the NMAA have been overseeing mine action across the country through UNMAS's main office in Juba, and sub-offices in Bentiu, Bor, Malakal, and Wau. Together, UNMAS and the NMAA accredit, task, monitor, and evaluate mine action organisations; conduct route verification and clearance; provide escorts for convoys on high-threat routes to enable the delivery of humanitarian assistance; and collect data and map hazardous areas.[13]

It is planned that the NMAA will assume full responsibility for all mine action activities throughout the country in the next four years. However, according to UNMAS, the NMAA continued to face serious financial and technical limitations preventing it from doing so effectively and accordingly, UNMAS continued with support to the NMAA during 2021.[14]

NMAA staff were trained in quality management and field monitoring, as well as with planning field operations. In addition, an NMAA mobile explosive ordnance disposal (EOD) team was trained and mentored in response to unexploded ordnance (UXO) spot tasks and basic reporting.[15] In 2021, UNMAS reported that a resource mobilisation strategy was under development and, as at March 2022, this was still in progress.[16]

In 2021, UNMAS and Mines Advisory Group (MAG) were the co-coordinators of the mine action sub-cluster.[17] The sub-cluster coordinates with the national- and state-level Inter-Cluster Working Groups. This enables information to be shared on mines and unexploded ordnance (UXO); for UN agencies and non-governmental organisations (NGOs) to inform mine action actors about their own priority locations for clearance; and for information to be integrated into the annual Humanitarian Needs Overview and Humanitarian Response Plan.[18] The sub-cluster meets at least once per quarter and holds ad hoc meetings as necessary; in 2021, six meetings were held.[19]

In 2021, the Government of South Sudan funded the costs of NMAA staff salaries and its sub-offices across the country, in Wau and Yei, although, as at March 2022, use of the Yei office continued to be suspended due to the security situation. The NMAA did not, however, provide any funding for survey or clearance. The government's total support was reported as below US$100,000 for the year.[20]

In South Sudan's revised 2020 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request, completing all mine clearance by July 2026 was estimated to cost US$148 million.[21] In 2021, South Sudan received just over US$6.4 million for mine action from external sources which is a dramatic decrease from the more than US$40 million received in 2020.[22] The NMAA has requested international funding and technical support in 2022–24 for CMR clearance and for training on residual capacity.[23]

### ENVIRONMENTAL POLICIES AND ACTION

South Sudan has an National Technical Standards & Guidelines (NTSG) on Health & Safety, Social & Environment (HSSE), which was introduced in 2018 and is in line with IMAS 07.13 on Environmental Management in Mine Action.[24] Implementing partners in South Sudan establish their own standard operating procedures (SOPs) and policies based on the NTSGs to safeguard the environment. It is a requirement that when survey and clearance operations are completed the area should be restored in accordance with the wishes of the local community, as a minimum restoration should include the removal of large items of scrap metal, the filling in of any pits or craters due to EOD, and the fencing off of any areas where there may be residual non-explosives hazardous materials left in the ground.[25]

12 Email from Ayaka Amano, UNMAS, 2 May 2019.
13 UNMAS, "Mine Action Portfolio 2019".
14 Email from Fran O'Grady, UNMISS, 9 March 2022.
15 Email from Fran O'Grady, UNMISS, 9 March 2022.
16 Ibid.
17 Email from Lisa Mueller-Dormann, MAG, 9 May 2021.
18 UNMAS, "Mine Action Portfolio 2019".
19 Email from Fran O'Grady, UNMISS, 9 March 2022.
20 Ibid.
21 Revised 2020 Article 5 deadline extension request, p. 75.
22 UNMAS, "Mine Action Portfolio 2019", pp. 20–21; and emails from Richard Boulter, UNMAS, 11 April 2021; and Fran O'Grady, UNMISS, 9 March 2022.
23 Voluntary Article 7 Report (covering 2020), Form I.
24 Ibid.
25 Article 7 Report (covering 2021), Form B.

## GENDER AND DIVERSITY

South Sudan's second national mine action strategy for 2018–22 includes a section on gender, focusing on how different gender and age groups are affected by mines and ERW and have specific and varying needs and priorities. Guidelines on mainstreaming gender considerations in mine action planning and operations in South Sudan are also incorporated in the strategy, including on the collection of data disaggregated by sex and age.[26] UNMAS reported that the programme was also implementing the UN Gender Guidelines for Mine Action, monitored by a gender focal point, who also encourages the implementing partners to provide equal employment opportunities and consider the role and the behaviour of male and female beneficiaries when planning, implementing, and managing projects.[27]

South Sudan's NTSGs contain provisions requiring all community liaison teams to tailor activities on the basis of the gendered needs of beneficiaries, and to address the specific risks faced by women and girls.[28] All teams are reportedly gender balanced in composition and trained to be inclusive, for example by ensuring outreach through non-technical survey and risk education is done separately for different age and gender groups, and taking local cultural practices into consideration.[29] At the same time, UNMAS reported that task prioritisation was predominantly dependent on security and that resources were concentrated on tasks within limited geographical areas rather than on the basis of gender needs.[30] Ethnic identity is taken into account within survey and clearance teams to ensure safe access and acceptance by the respective local communities.[31]

In 2019–20, UNMAS was providing workshops for the NMAA and mine action partners on gender equality, gender-based violence (GBV), and gender mainstreaming programming in mine action with the aim of GBV prevention practices being mainstreamed in mine action and there being equal opportunity in decision making regardless of gender.[32] As at May 2022, it was not known if these had yet happened. Implementation had been delayed due to COVID-19 and related restrictions.

UNMAS has said that, in theory, employment opportunities for qualified men and women in survey and clearance teams across the organisations operating in South Sudan are equal. However, redressing the gender balance is a long-term challenge and a work in progress.[33] As part of its initiatives to recruit female deminers, UNMAS's implementing partner, SafeLane Global, conducted a basic demining training course in the first quarter of 2021 where 20% of the candidates were female.[34] In 2021, 12% of staff in operational roles were women (or if international operators are included this rose to 14%), while 16% of staff in managerial or supervisory positions were women.[35]

All of the community liaison teams within MAG are mixed gender and the organisation reports that it consults with all affected community members, including women and children. MAG also holds women-only focus groups to ensure that their voices are heard. MAG also aims to recruit team members from the more than 60 ethnic groups within South Sudan and tries to ensure that at least one team member speaks the local language of the planned area of deployment. As at March 2022, three women held managerial positions within MAG and 35% of survey and clearance team members were women. MAG has ring-fenced training opportunities for women to improve their likelihood of securing leadership roles. In 2021, the first woman was awarded an EOD Level 2 qualification and received accreditation from UNMAS with more opportunities for women to be made available in late 2022 and early 2023.[36]

## INFORMATION MANAGEMENT AND REPORTING

A comprehensive review of all data in South Sudan's IMSMA database began in 2018, along with re-survey of recorded SHAs and CHAs whose size was thought to be exaggerated or location misrecorded. Through the database review it was found that past efforts to upgrade the IMSMA software package had led to serious data loss, which inhibited efforts to present an accurate record of the history of mine action in South Sudan. The ongoing database review has, though, resulted in significant gains in the understanding of mine and ERW contamination. UNMAS informed Mine Action Review that, wherever possible, the database disaggregates mined areas, CMR-contaminated areas, and other ERW-contaminated areas, including spot tasks.[37]

As previously mentioned, a review of existing records in the database and re-survey resulted in three main changes that have proved especially significant with regard to CMR contamination: a number of existing task records had been wrongly recorded and were re-classified as CMR-contaminated areas; several overly conservative estimates of the size of existing CHAs in the database were increased to better reflect the actual extent of contamination; and previously unrecorded areas containing CMR were added to the database.[38]

26 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.
27 Emails from Ayaka Amano, UNMAS, 2 May 2019; and Fran O'Grady, UNMISS, 9 March 2022.
28 Email from Ayaka Amano, UNMAS, 2 May 2019.
29 Ibid.
30 Ibid.
31 Email from Richard Boulter, UNMAS, 8 July 2020.
32 UNMAS "Mine Action Portfolio 2019".
33 Email from Ayaka Amano, UNMAS, 2 May 2019.
34 Email from Richard Boulter, UNMAS, 11 June 2021.
35 Email from Fran O'Grady, UNMISS, 9 March 2022.
36 Email from Lisa Mueller-Dormann, MAG, 22 March 2022.
37 Email from Ayaka Amano, UNMAS, 2 May 2019; and 2020 Article 5 deadline extension request, p. 9.
38 Email from Ayaka Amano, UNMAS, 2 May 2019.

In 2021, South Sudan was supported by the Geneva International Centre for Humanitarian Demining (GICHD) to upgrade its IMSMA database to IMSMA Core. All relevant reports, including external quality assurance (EQA), hazard/completion, and incident/accident reports were successfully transferred.[39]

South Sudan submitted a voluntary CCM Article 7 report for the first time in 2020, despite not having yet acceded to the Convention. South Sudan submitted its third voluntary Article 7 report in April 2022.

## PLANNING AND TASKING

South Sudan's most recent National Mine Action Strategy 2018–2022, developed with support from the GICHD and using funding from Japan, was officially launched in September 2018.[40]

According to UNMAS, the strategy has three strategic goals with related targets:[41]

**Goal 1:** Advocacy and communication of South Sudan's mine/ERW problem continues through national and international awareness-raising and adoption and implementation of international conventions to facilitate a mine-/ERW-free South Sudan.

**Goal 2:** The extent of mine/ERW contamination is clarified and confirmed and the problem addressed through appropriate survey and clearance, ensuring safe land is handed back to affected communities for use.

**Goal 3:** Safe behaviour is promoted among women, girls, boys, and men to reduce mine/ERW accidents and promote safe livelihood activities.

A mid-term strategic review of South Sudan's national strategy was conducted in January 2020 supported by the GICHD. National and international stakeholders were brought together in Juba to determine progress, discuss challenges, and identify the best way forward.[42] The results of the review were considered when elaborating the operational clearance plan for 2020–21 by adopting a pragmatic approach to prioritisation and focusing on efficient deployment of resources. The operational focus for 2021–22 was on securing safe access and creating a more secure environment for affected communities and returnees by conducting survey, mechanical and manual area clearance, and road clearance.[43]

In its revised 2020 APMBC Article 5 deadline extension request South Sudan presents a work plan through to 2026, disaggregated by region. South Sudan estimates that the clearance requirement for CMR and for other battle area clearance (BAC) is 168 tasks covering just under 7.7km$^2$. CMR clearance teams using manual clearance drills are expected to clear 1,000m$^2$ per team per day, equating to 176,000m$^2$ per year, while mechanically supported teams are expected to clear 2,000m$^2$ per day or 352,000m$^2$ per team per year. This calculation includes the assumption that one month of productivity each year will be lost due to factors such as COVID-19, insecurity, and travel time.[44]

**Table 2: Planned clearance of CMR- and UXO-contaminated area (2021–25)**[45]

| Year | No. of teams | Area cleared (m$^2$) | Area remaining (m$^2$) | Tasks remaining |
|---|---|---|---|---|
| 2021 | 8 manual<br>2 mechanical | 1,232,000 manual<br>616,000 mechanical | 5,839,872 | 123 |
| 2022 | 7 manual<br>2 mechanical | 1,078,000 manual<br>616,000 mechanical | 4,145,872 | 81 |
| 2023 | 7 manual<br>2 mechanical | 1,078,000 manual<br>616,000 mechanical | 1,829,471 | 44 |
| 2024 | 7 manual<br>2 mechanical | 1,078,000 manual<br>616,000 mechanical | 245,471 | 7 |
| 2025 | 7 manual | 792,000 manual | 0 | 0 |

According to its revised 2020 APMBC Article 5 deadline extension request, South Sudan intends to address all explosive contamination by its new deadline of 2026. To that end, aside from those tasks where specific humanitarian interventions are planned, the intention is to be pragmatic in the sequencing of tasks with a view to optimising all clearance efforts.[46]

39 Emails from Fran O'Grady, UNMISS, 9 March 2022; and Sasha Logie, Country Focal Point, GICHD, 21 April 2022.
40 Email from Ayaka Amano, UNMAS, 2 May 2019.
41 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018; and Richard Boulter, UNMAS, 6 June 2018.
42 Email from GICHD, 29 June 2021.
43 Email from Fran O'Grady, UNMISS, 9 March 2022.
44 Revised 2020 Article 5 deadline Extension Request, p. 74.
45 Ibid.
46 Ibid., p. 75.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

South Sudan's National Technical Standards and Guidelines (NTSGs), which outline the technical requirements expected of all demining operators working in South Sudan, are adapted from the International Mine Action Standards (IMAS). The NTSGs are annually reviewed and revised by UNMAS and the implementing partners and then approved by the NMAA.[47] These standards and guidelines also contain provisions specific to CMR survey and clearance.[48] In 2021, revisions were made to a number of NTSGs, including survey, land release, quality management, accreditation of mine action organisations, and manual mine clearance.[49]

Both UNMAS and MAG have reported that a considerable number of initial survey reports of CMR-contaminated areas have underestimated the extent of the contamination. MAG reported that areas were often recorded based on the minimum amount of clearance that would be required to comply with the NTSGs, which require a 50 metre fade-out. In MAG's experience, however, the actual CMR-contaminated area has often proved to be significantly larger, making it difficult to accurately plan for the time and resources needed to address each task.

MAG begins CMR clearance with the expectation that the task area will reach at least 60,000m$^2$ and at times has encountered CMR tasks that had to be expanded by more than 100,000m$^2$ compared to the original estimate. It further reported that the fade-out requirements of the NTSGs sometimes resulted in handover of cleared land while simultaneously creating a new "hazardous area" comprising the fade-out distance.[50] UNMAS reported that often in a recorded strike area, multiple cluster munition canisters are found, with the consequence that the overall contaminated area extends well beyond an expected standard footprint.[51]

UNMAS noted that the NTSGs require all mine action teams to conduct regular internal quality assurance (QA), along with Quality Control (QC) sampling of 10% of each area cleared.[52] In 2021, the external quality assurance reporting was transferred onto IMSMA Core. In addition, the minimum frequency for the organisational senior management internal quality assurance visits to each team was set in the NTSG at one per month and a standardised scoring matrix was introduced for the EOD written examination.[53]

## OPERATORS AND OPERATIONAL TOOLS

UNMAS reported that 22 teams from three international demining non-governmental organisations (MAG, Danish Refugee Council - Mine Action (DRC-MA), and Danish Church Aid (DCA)), and two commercial companies (G4S Ordnance Management, (G4S); and The Development Initiative, (TDI)) conducted CMR survey and clearance tasks in 2021. It estimated the number of operational personal involved in CMR survey and clearance at 290 during the year (see Table 3). There were no major changes in capacity from 2020 to 2021 and in 2022 it expected an increase in mechanical ground preparation capacity (one MW-240 and one MW-50) in support of CMR clearance.[54]

**Table 3: Operational clearance capacities deployed in 2021**[55]

| Operator | Manual teams | Total personnel | Mechanical assets | Comments |
|---|---|---|---|---|
| G4S QRT | 4 | 28 (7 x 4) | 0 | Provided emergency response while working on CMR clearance for 6 months. |
| G4S MTT | 6 | 114 (19 x 6) | 0 | All teams worked only on CMR clearance for 9 months. |
| SafeLane Global | 2 | 36 (18 x 2) | 0 | Two teams conducted CMR clearance for 8 months. |
| TDI | 2 | 16 (8 x 2) | 0 | Two teams conducted CMR clearance for 11 months. |
| MAG | 5 (decreasing to 4 from Sept 2021) | 50 (decreasing to 40 from Sept 2021) | 2 | MAG focused on CMR clearance during the year. |
| DRC-MA | 3 | 36 (12 x 3) | 0 | DRC-MA conducted CMR clearance with 3 teams. |
| DCA | 1 | 12 | 0 | DCA had 1 team on a CMR clearance task for 3 months. |
| **Totals** | **23 (22)** | **292 (282)** | **2** | |

MTT = Multi-Task teams QRT = Quick Response Teams

47 Article 7 Report (covering 2019), Form 4.
48 Email from Robert Thompson, UNMAS, 21 April 2016; and responses to questionnaire, 30 March 2015; and email from Augustino Seja, NPA, 11 May 2015.
49 Email from Fran O'Grady, UNMISS, 9 March 2022.
50 Email from Katie Shaw, MAG, 26 April 2019.
51 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.
52 Email from Ayaka Amano, UNMAS, 2 May 2019.
53 Email from Fran O'Grady, UNMISS, 9 March 2022.
54 Ibid.
55 Emails from Fran O'Grady, UNMISS, 9 March 2022; and Lisa Mueller-Dormann, MAG, 22 March 2022.

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2021

A total of a nearly 3.9km$^2$ of CMR-contaminated area was released through survey and clearance in 2021. Of this, 0.47km$^2$ was cancelled through non-technical survey and 3.41km$^2$ was cleared with no area reduced through technical survey.

## SURVEY IN 2021

In 2021, a total of 466,954m$^2$ was cancelled through non-technical survey in Central Equatoria, Eastern Equatoria, and Western Bahr el Ghazal (see Table 4).[56] This is a massive increase from the 30,971m$^2$ of suspected CMR contamination cancelled through non-technical survey in Eastern Equatoria and Western Equatoria in 2020.[57]

No area was reduced through technical survey in 2021.[58] This compares to the 32,238m$^2$ reduced through technical survey in Central Equatoria, Eastern Equatoria, and Warrap in 2020.[59]

**Table 4: Cancellation through non-technical survey in 2021[60]**

| State | Operator | Area cancelled (m²) |
|---|---|---|
| Central Equatoria | G4S | 6,013 |
| Central Equatoria | MAG | 14,847 |
| Eastern Equatoria | DRC-MA | 8,912 |
| Eastern Equatoria | G4S | 434,746 |
| Eastern Equatoria | MAG | 3 |
| Western Bahr el Ghazal | G4S | 2,433 |
| **Total** | | **466,954** |

## CLEARANCE IN 2021

In 2021, a total of just over 3.4km$^2$ of CMR-contaminated area was cleared with 2,851 submunitions destroyed (see Table 5).[61] This is an increase from the just over 2.2km$^2$ of CMR-contaminated area that was cleared in 2020 with 1,813 submunitions destroyed.[62]

**Table 5: CMR clearance in 2021[63]**

| State | Operator | Area cleared (m²) | Submunitions destroyed | Other UXO destroyed |
|---|---|---|---|---|
| Central Equatoria | DRC-MA | 219,944 | 111 | 3 |
| Central Equatoria | G4S | 172,307 | 182 | 5 |
| Central Equatoria | MAG | 317,870 | 167 | 11 |
| Central Equatoria | TDI | 151,750 | 134 | 96 |
| Eastern Equatoria | DCA | 8,052 | 0 | 0 |
| Eastern Equatoria | DRC-MA | 290,560 | 304 | 1 |
| Eastern Equatoria | G4S | 662,411 | 634 | 5 |
| Eastern Equatoria | MAG | 698,136 | 921 | 24 |
| Upper Nile | G4S | 251,953 | 109 | 4 |
| Western Bahr El Ghazal | G4S | 123,554 | 8 | 0 |
| Western Equatoria | MAG | 78,628 | 25 | 0 |
| Western Equatoria | G4S | 437,919 | 256 | 4 |
| **Totals** | | **3,413,084** | **2,851** | **153** |

56 Ibid.

57 Emails from Richard Boulter, UNMAS, 11 April 2021; and Lisa Mueller-Dormann, MAG, 9 May 2021. This differs from the 63,209m$^2$ reported as cancelled through NTS in South Sudan's voluntary Article 7 report where no area was reported as reduced through TS.

58 Email from Fran O'Grady, UNMISS, 9 March 2022.

59 Email from Richard Boulter, UNMAS, 11 April 2021.

60 Email from Fran O'Grady, UNMISS, 9 March 2022; and Voluntary Article 7 Report (covering 2021), Form F.

61 Email from Fran O'Grady, UNMISS, 9 March 2022.

62 Voluntary Article 7 Report (covering 2019), Form F; and emails from Richard Boulter, UNMAS, 11 April 2021; and Lisa Mueller-Dormann, MAG, 9 May 2021.

63 Email from Fran O'Grady, UNMISS, 9 March 2022. This differs from the reporting provided by MAG where in Central Equatoria they cleared 375,538m$^2$ and destroyed 498 submunitions and 9 other items of UXO; in Eastern Equatoria they cleared 651,408m$^2$ and destroyed 905 submunitions and 21 other UXO; and in Western Equatoria they cleared 152,542m$^2$ and destroyed 56 submunitions. In its Voluntary Article 7 Report (covering 2021), Form F South Sudan provides clearance figures for 2011–21, but does not disaggregate by year.

In addition, 71 submunitions were destroyed during EOD spot tasks.[64]

MAG reported that two tasks were cleared totalling 20,594m$^2$ that were classified as a hazardous area because CMR were destroyed as a spot task, and no further submunitions were found.[65] UNMAS implementing partners cleared one reported cluster munition site covering an area of 351,651m$^2$ which proved to contain no CMR.[66]

UNMAS and MAG reported that the primary reason for the increase in overall land release from 2020 to 2021 was due to the negative impact that COVID-19 restrictions had on clearance operations in 2020, which meant that only five months of the year were operational.[67]

## PROGRESS TOWARDS COMPLETION

South Sudan is not yet a State Party to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, South Sudan has obligations under international human rights law to clear CMR as soon as possible.

South Sudan has announced its intention to accede to the CCM, which is also a specific objective in the National Mine Action Strategic Plan 2018–2022.[68] In May 2019, UNMAS reported that documents relating to South Sudan's accession to the Convention were under review by the national parliament.[69] As at May 2022, the legislation was still before parliament for adoption.[70] According to UNMAS, in this time the Government of South Sudan has been focused on establishing its infrastructure and limited routine parliamentary business has taken place.[71]

Previously, primarily due to the ongoing conflict, it was impossible to predict when South Sudan might complete clearance of CMR, or even assess the true extent of contamination.[72] However, with improvements in the security situation, progress in release of CMR-contaminated areas, and a comprehensive database review, the situation has begun to look far more positive.

According to South Sudan's revised 2020 APMBC Article 5 deadline extension request, clearance of all CMR-contaminated areas is expected by July 2026 along with completion of mine clearance. In addition, the extension request clearly sets out the primary assumptions and risk factors in the implementation of land release targets, which are contingent on the present level of funding being maintained and having access to contaminated areas, with an end to fighting in the country.[73]

Logistical challenges will also need to be overcome due to the poor state of South Sudan's infrastructure and the effects of the seasonal rains, which mean that clearance in much of the country is only possible for eight months of the year given widespread flooding. Furthermore, the methodology previously used to clear roads was flawed as several mines have recently been discovered on roads that had been declared safe, resulting in the need for re-clearance. This has diverted resources from clearance of CMR.[74]

In 2021, South Sudan needed to release 1.09km$^2$ of CMR- and other UXO-contaminated area to meet its target for the year.[75] As nearly 3.9km$^2$ of CMR-contaminated area alone was released through survey and clearance South Sudan has easily exceeded this target with the total area released including other UXO contamination at just under 4.6km$^2$.[76] According to UNMAS, if the current battle area clearance capacity can be sustained to July 2026 then South Sudan will be able to complete clearance of CMR contamination by this date.

The daily clearance rate increased in 2021 with the introduction of large teams of 15 deminers with three or more large-loop metal detectors per team. However, the security situation remains a significant challenge in South Sudan with sporadic fighting across the country continuing in 2021. In addition, South Sudan experienced its worst flooding on record during the year, with clearance in the Jonglei and Upper Nile regions affected.[77]

64 Ibid.

65 Email from Lisa Mueller-Dormann, MAG, 22 March 2022.

66 Email from Fran O'Grady, UNMISS, 9 March 2022.

67 Emails from Fran O'Grady, UNMISS, 9 March 2022; and Lisa Mueller-Dormann, MAG, 22 March 2022.

68 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.

69 Email from Ayaka Amano, UNMAS, 2 May 2019. On 5 September 2017, at the CCM 7th Meeting of States Parties, South Sudan announced its attention to accede to the Convention, stating that its Council of Ministers had taken a decision unanimously on 25 August 2017 to "fully accede" and comply with the CCM. Statement of South Sudan, CCM Seventh Meeting of States Parties, Geneva, 5 September 2017.

70 Email from Zehrudin Sukanovic, Head of Project Unit/Chief of Operations, UNMAS, 31 May 2022.

71 Email from Richard Boulter, UNMAS, 11 April 2021.

72 Email from Ayaka Amano, UNMAS, 2 May 2019.

73 Email from Richard Boulter, UNMAS, 11 April 2021.

74 Revised 2020 Article 5 deadline Extension Request, pp. 46–48.

75 Ibid., p. 74.

76 Email from Fran O'Grady, UNMISS, 9 March 2022; and UNMAS South Sudan, IMSMA monthly report, March 2004 to December 2021, at: https://bit.ly/3PpGCue.

77 Email from Fran O'Grady, UNMISS, 9 March 2022; and UNHCR, "UNHCR warns of dire impact from floods in South Sudan as new wet season looms", 29 March 2022, at: https://bit.ly/3llVXhz.